

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 11

PATENT NO. : 7,046,640 B2

APPLICATION NO. : 09/896,564

ISSUE DATE : May 16, 2006

INVENTOR(S) : Silva, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Face Page, in Field (56), under "OTHER PUBLICATIONS", in Column 2, Line 5, delete "Technolgy" and insert - - Technology - -, therefor.

On Page 2, in Field (56), under "OTHER PUBLICATIONS", in Column 2, Line 7, delete "50-20011204-21" and insert - - C50-20011204-21 - -, therefor.

In Fig. 11, Sheet 11 of 25, for Tag "1108", Line 5, delete "REQUIRENTS" and insert - - REQUIREMENTS - -, therefor.

In Fig. 18B, Sheet 18 of 25, for Tag "1816", Line 1, delete "REACH" and insert - - REACHED - -, therefor.

In Fig. 18B, Sheet 18 of 25, for Tag "1816", Line 3, after "WHETHER THE" delete "THE".

In Fig. 22, Sheet 22 of 25, below figure, Line 1, delete "SUBSRIBER" and insert - - SUBSCRIBER - -, therefor.

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It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Fig. 23, Sheet 23 of 25, below figure, Line 1, delete "POWR" and insert - - POWER - -, therefor.

In Column 1, Line 23, after "entitled" delete "is".

$$\left[ \frac{E_c}{I_o} \right]_{\text{req}_R-PICH}^c$$

In Column 7, Lines 20-24, delete "  $\text{im}(\text{ibin}, f_i)_n$  " and insert - -  $\left[ \frac{E_c}{I_s} \right]_{\text{req}_R-PICH}^c (\text{im}(\text{ibin}, f_i))_n$  - -, therefor.

In Column 7, Line 27, delete " $I_o = \hat{I}_{or} + I_{oc} + N_o$ " and insert - -  $I_o = \hat{I}_{or} + I_{oc} + N_o$  - -, therefor.

$$\left[ \frac{E_b}{N_t} \right]_{\text{req}_R-PCH}^c$$

In Column 7, Lines 30-34, delete "  $(\text{im}(\text{ibin}, f_i))_n$  " and insert - -  $\left[ \frac{E_b}{N_t} \right]_{\text{req}_R-PCH}^c (\text{im}(\text{ibin}, f_i))_n$  - -, therefor.

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It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Column 7, Line 36, after " $N_t = I_{oc} + N_o$ " insert - - . - -.

In Column 8, Line 22, after "step 302" insert - - , - -.

In Column 8, Line 27, after "step 302" insert - - , - -.

In Column 8, Line 35, after "step 302" insert - - , - -.

In Column 8, Line 52, after "step 304" insert - - , - -.

In Column 10, Line 34, Equation No. 8, delete " $L_{f,r}^c(k)G_r(k, im(ibin, f_i))_n$ ," and insert - -  $L_{f,r}^c(k)G_r(k, im(ibin, f_i))_n$  - -, therefor.

In Column 10, Lines 57-58, delete " $EIRP_{without-SHG}^m(K, im(ibin, f_i))_n$ " and insert - -  $EIRP_{without-SHG}^m(K, im(ibin, f_i))_n$  - -, therefor.

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It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Column 11, Lines 37-38, Equation No. 10, delete " $\frac{R - FCH\_EIRP^m(k, im(ibin, f_i))_n}{L_f^m(im(ibin, f_i))_n \cdot G^m(k, \theta_{point}(im(ibin, f_i))_n)} \cdot \gamma_{R-FCH_n}$ " and  
insert -- " $\frac{R - FCH\_EIRP^m(k, im(ibin, f_i))_n}{L_f^m(im(ibin, f_i))_n \cdot G^m(k, \theta_{point}(im(ibin, f_i))_n)} \cdot \gamma_{R-FCH_n}$ " --, therefor.

In Column 11, Line 50, delete " $P_{R-FCH}^m$ " and insert -- " $P_{R-FCH}^m$ " --, therefor.

In Column 12, Line 6, delete " $P_{R-FCH}^m$ " and insert -- " $P_{R-FCH}^m$ " --, therefor.

In Column 14, Line 39, delete " $G^m(k, 74_{point}(im, ibin, f_i))$ " and insert -- " $G^m(k, \theta_{point}(im, ibin, f_i))$ " --, therefor.

In Column 15, Line 10, Equation No. 12, delete " $\frac{R\_SCH\_EIRP^m(k, im(ibin, f_i))_n}{L_f^m(im(ibin, f_i))_n \cdot G^m(k, \theta_{point}(im(ibin, f_i))_n)}$ " and  
insert -- " $\frac{R\_SCH\_EIRP^m(k, im(ibin, f_i))_n}{L_f^m(im(ibin, f_i))_n \cdot G^m(k, \theta_{point}(im(ibin, f_i))_n)}$ " --, therefor.

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It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Column 15, Line 20, Equation No. 13, delete " $\frac{R - SCH\_EIRP_n^m(k, im(ibin, f_i))_n}{L_f^m(im(ibin, f_i))_n \cdot G^m(k, \theta_{point}(im(ibin, f_i))_n)} \cdot \gamma_{R-SCH}$ ", and insert --  $\frac{R - SCH\_EIRP_n^m(k, im(ibin, f_i))_n}{L_f^m(im(ibin, f_i))_n \cdot G^m(k, \theta_{point}(im(ibin, f_i))_n)} \cdot \gamma_{R-SCH}$  --, therefor.

In Column 16, Lines 6-7, Equation No. 14, delete " $\frac{[P_{R-PICH}^m(BestFundServSec(im(ibin, f_i))_n, im(ibin, f_i))_n]}{[P_{R-SCH}^m(BestFundServSec(im(ibin, f_i))_n, im(ibin, f_i))_n]}$ " and insert --  $\frac{[P_{R-PICH}^m(BestFundServSec(im(ibin, f_i))_n, im(ibin, f_i))_n]}{[P_{R-SCH}^m(BestFundServSec(im(ibin, f_i))_n, im(ibin, f_i))_n]}$  --, therefor.

In Column 16, Line 14, delete " $N_{Supp}^{rvs}$  to  $N_{max\_Supp}^{rvs}$ ", and insert --  $N_{Supp}^{rvs}$  to  $N_{max\_Supp}^{rvs}$  --, therefor.

In Column 20, Line 34, delete " $[App^m(im(ibin, f_i))_{data}]^{voice}$ " and insert --  $[App^m(im(ibin, f_i))_{data}]^{voice}$  --, therefor.

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In Column 20, Line 45, delete " $[App^m(im(ibin, fi))_{data}^{voice}]$ " and  
insert --  $[App^m(im(ibin, fi))_{data}^{voice}]$  --, therefor.

In Column 20, Line 48, Equation No. 15, delete " $[App^m(im(ibin, fi))_{data}^{voice}]$ ," and  
insert --  $[App^m(im(ibin, fi))_{data}^{voice}]$  --, therefor.

In Column 20, Line 59, delete " $[Fund\_P_{tch}^c(k, im(ibin, fi))]hd\ n^{voice}$ " and  
insert --  $[Fund\_P_{tch}^c(k, im(ibin, fi))]hd\ n^{voice}$  --, therefor.

In Column 20, Line 65, delete " $[Fund\_P_{tch}^c(k, im(ibin, fi))]hd\ n^{data}$ " and  
insert --  $[Fund\_P_{tch}^c(k, im(ibin, fi))]hd\ n^{data}$  --, therefor.

In Column 21, Line 4, delete " $[SCCH\_P_{tch}^c(k, im(ibin, fi))]hd\ n^{voice}$ " and  
insert --  $[SCCH\_P_{tch}^c(k, im(ibin, fi))]hd\ n^{voice}$  --, therefor.

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It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Column 21, Line 11, delete " $[SCCH\_P_{rch}^c(k, im(ibin, f_i))]hd\ n^{data}$ " and  
insert - -  $[SCCH\_P_{rch}^c(k, im(ibin, f_i))]_n^{data}$  - -, therefor.

In Column 21, Line 17, delete " $[SCH\_P_{rch}^c(k, im(ibin, f_i))]hd\ n^{voice}$ ," and  
insert - -  $[SCH\_P_{rch}^c(k, im(ibin, f_i))]_n^{voice}$  - -, therefor.

In Column 21, Line 25, delete " $[SCH\_P_{rch}^c(k, im(ibin, f_i))]hd\ n^{data}$ ," and  
insert - -  $[SCH\_P_{rch}^c(k, im(ibin, f_i))]_n^{data}$  - -, therefor.

In Column 22, Lines 58-59, delete " $[Fund\_P_{rch}^c(k, im(ibin, f_i))]hd\ n^{voice}$ ," and  
insert - -  $[Fund\_P_{rch}^c(k, im(ibin, f_i))]_n^{voice}$  - -, therefor.

In Column 22, Lines 61-62,  
delete " $P_{rch\_lower}(k, f_i) = \gamma_f(k, f_i) * G_a^2 * G_{PICH}^2(k, f_i) \times 10^{(PTX_{lower}(k, f_i)/10)}$ " and

insert - -  $P_{rch\_lower}(k, f_i) = \gamma_f(k, f_i) * G_a^2 * G_{PICH}^2(k, f_i) \times 10^{(PTX_{lower}(k, f_i)/10)}$  - -, therefor.

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It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Column 23, Line 2, delete "Ga<sub>a</sub><sup>2</sup>" and insert - - G<sub>a</sub><sup>2</sup> - -, therefor.

In Column 23, Line 17, delete "parameters" and insert - - parameter L - -, therefor.

In Column 23, Line 40, Equation No. 19,

delete " $P_{ich\_upper}(k, f_i) = \gamma_f(k, f_i) * G_a^2 * G_{PICH}^2(k, f_i) \times 10^{(PTX_{upper}(k, f_i)/10)}$ " and

insert - -  $P_{ich\_upper}(k, f_i) = \gamma_f(k, f_i) * G_a^2 * G_{PICH}^2(k, f_i) \times 10^{(PTX_{upper}(k, f_i)/10)}$  - -, therefor.

In Column 23, Line 43, delete " $G_{PICH}^2(k, f_i)$ " and insert - -  $G_{PICH}^2(k, f_i)$  - -, therefor.

In Column 23, Lines 56-57, delete " $PTX_{upper}^{F-FCH}(k, f_i)$ ," and

insert - -  $PTX_{upper}^{F-FCH}(k, f_i)$  - -, therefor.

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It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Column 24, Line 29, after "configuration" delete "A".

In Column 29, Lines 34-35, Equation No. 28, delete " $\min \left\{ \text{MaxPA\_power}(k, f_i), P_{PICH}^*(k, f_i) \times 10^{-\left(\frac{E_c}{T_{or}}\right)_{PICH\_limit}} \right\}$ " and insert --  $\min \left\{ \text{MaxPA\_power}(k, f_i), P_{PICH}^*(k, f_i) \times 10^{-\left(\frac{E_c}{T_{or}}\right)_{PICH\_limit}} \right\}$  --, therefor.

In Column 30, Lines 2-3, delete " $\text{FwdCallBlockTH}(k, f_i) \leq \text{FwdHOBLOCK}(k, f_i)$ " and insert --  $\text{FwdCallBlockTH}(k, f_i) \geq \text{FwdHOBLOCK}(k, f_i)$  --, therefor.

In Column 37, Lines 36-38, Equation No. 34, delete " $M_{ID\_EBN_i}^m(i, j)$ " and insert --  $M_{ID\_EBN_i}^m(i, j)$  --, therefor.

In Column 38, Line 24, Equation Set 36, delete " $\forall p, q \in \mathcal{J} \geq 1$ " and insert --  $\forall p, q \in \mathcal{J} \geq 1$  --, therefor.

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In Column 39, Lines 35-38, Equation No. 38, delete  $\left\{ i \in M_{ID\_Ebn}^m(i, j) : \min_{\substack{v_i=1, \dots, 4 \\ \text{and} \\ \forall M_{ID\_Ebn}^m(i, j) \neq -1}} \left\{ \sum_{j=1}^{N+1} M_{ID\_Ebn}^m(i, j) \right\} \right\}$  and

insert --  $\left\{ i \in M_{ID\_EbN_i}^m(i, j) : \min_{\substack{v_i=1, \dots, 4 \\ \text{and} \\ \forall M_{ID\_EbN_i}^m(i, j) \neq -1}} \left\{ \sum_{j=1}^{N+1} M_{ID\_EbN_i}^m(i, j) \right\} \right\}$  --, therefor.

In Column 42, Line 6, in Claim 16, after "each" delete "the".

In Column 43, Line 20, in Claim 25, after "each" delete "the".

In Column 43, Line 50, in Claim 27, after "determining" insert -- the --.

In Column 43, Line 56, in Claim 28, delete "unit." and insert -- unit --, therefor.

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In Column 44, Line 12, in Claim 30, after "each" delete "the".

In Column 45, Line 11, in Claim 37, after "iteration" insert - - , - -.

In Column 46, Line 4, in Claim 39, after "base station" insert - - ; - -.

### MAILING ADDRESS OF SENDER (Please do not use customer number below):

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